

## ALDER ENERGY SYSTEMS

Below are some comments about best practices from a local solar sales and installation provider. These reflect how Alder Energy Systems presents solar proposals to customers and hopefully can show some ways to help customers decipher confusing or misleading information.

1. Require all solar sales proposals to show cost per Watt (**\$/W**). This allows customers to compare one proposal to another, apples-to-apples, based on the price in relation to the system DC size. Example: a 10kW DC system with a \$30,000 price is \$3.00 per Watt.
2. Require all solar sales proposals to show estimated energy production per system size (**kWh/kW**). This also allows an apples-to-apples comparison between proposals, revealing the system efficiency: the annual energy production (kWh) for each DC kW installed. Example: a 10kW solar system that produced 13,500 kWh annually has a 1,350 kWh/kW efficiency. This would be good production for a residential system in SC. Depending on roof orientation, shade, and equipment, most residential systems range between 1,200 - 1,450 kWh/kW. If a proposal shows significantly higher production (in the 1,600s), then the salesperson is over-promising its production.
3. Proposals should state clearly that all energy production numbers are *estimates*.
4. Make sure that installation contracts have a clear cancellation and Change Order process. For instance, a customer paying cash likely has to pay a deposit of at least 10% at contract signing. Once the contract is signed, the solar company will start to spend money and resources on engineering, interconnection applications, design, etc. If the system cannot be installed as specified, because of engineering, zoning, HOAs, or utility feedback, then the project may be cancelled and the deposit refunded, minus expenses to date. Or, if the system can be changed in order for the project to move forward, then the contract should have a change order process, where both the customer and installer agree to changes, before the project moves forward. This ensures that solar companies install what was contracted and don't substitute without permission.

Similar to how the health insurance industry must now present standardized points for comparison when they pitch a policy, the solar industry should have standardized outputs that allow customers to compare apples-to-apples.

Alder Energy doesn't employ door-knocking or paid lead generation services, and we don't sell residential solar leases, so I cannot speak directly about the best practices for those.

Hopefully this information is helpful. Let me know if you have any questions.

Best,  
Craig

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